

REMARKS

In the Office Action mailed September 13, 2005, Claims 1-2, 5-6, 11-14, 20-21, 24, 26, 32-34, 36-39, 44 and 47 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0036626 by *Chan, et al.* in view of U.S. Patent No. 6,366,206 to *Ishikawa, et al.*; Claims 3-4, 7-10, 22-23 and 25 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over *Chan, et al.* in view of U.S. Patent No. 6,806,808 to *Watters, et al.*; Claims 15-17, 19, 40-43 and 45-46 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over *Chan, et al.* in view of U.S. Patent Application Publication No. 2004/0153344 by *Bui, et al.*, and Claims 27-31 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over *Chan, et al.* in view of U.S. Patent Application Publication No. 2001/0033230 by *Barber, et al.* Applicant submits that all pending claims are allowable over the art.

In that regard, independent claims 1, 20 and 44 are directed to a method and systems for measuring an animate body temperature at an external dermal surface thereof over an air interface, wherein both the method and systems provide for the use of a portable hand held probe for transmitting an interrogation signal to and receiving a response signal from a sensor having a thermally conductive contact surface for thermally contacting an external dermal surface of an animate body, and wherein the sensor utilizes energy derived from the interrogation signal to measure the temperature of an animate body at the thermally conductive contact surface/dermal surface interface and to generate the response signal indicative of the measured temperature. The prior art fails to disclose or suggest the method and systems of Claims 1, 20 and 44.

In particular, *Chan, et al.* fails to disclose or suggest, *inter alia*, a method or system in which a sensor, having a thermally conductive surface for thermally contacting an external dermal surface

of an animate body, provides a temperature measurement signal in response to and utilizing energy derived from an interrogation signal transmitted by a portable hand held probe. Rather, *Chan, et al.* is directed to arrangements having an implantable transponder. For example, in identifying needs of the invention in the Background section of *Chan, et al.* it is stated that:

[I]t would be advantageous to have an implantable transponder capable of transmitting temperature information, and which also consumes less power than thermister transponders which are capable of transmitting temperature information. (Emphasis added.) *Page 1, paragraph 0005.*

In turn, the Summary section of *Chan, et al.* states that:

The present invention solves the aforementioned problems and meets the aforementioned, and other, needs. In accordance with the present invention, an interrogation device and method for interrogating a transponder are provided. *Page 2, paragraph 0012.*

Then, in the Detailed Description section of *Chan, et al.*, FIG. 1 of *Chan, et al.* is referenced as illustrating:

[A] block diagram representation of a transponder system including a reader **100** and temperature sensing transponder **104** of one embodiment of the present invention. . . . *Page 3, paragraph 00041.*

In relation to the referenced transponder **104**, *Chan, et al.* states that:

The transponder **104** includes an antenna coil **128** and a transponder integrated circuit **132**. The antenna coil **128** carries out both receive and transmit functions such as those traditionally associated with implantable transponders, and are well known in the art. (Emphasis added.) *Page 4, paragraph 0042.*

In conjunction with the description of the transponder 104 shown in FIG. 1 of *Chan, et al.*, *Chan, et al.* describes various components and subcomponents of transponder 104 in relation to FIGS. 2-8 of *Chan, et al.*, as well as a calibration process therefor in relation to FIG. 9. As to other arrangements, *Chan, et al.* notes that:

[T]he transponder may be embedded in other objects rather than an animal. (Emphasis added.) *Page 8, paragraph 0071.*

Further, in the Detailed Description section *Chan, et al.* also states that:

In a further embodiment, the transponder may also collect other information from a host animal or other object in which the transponder is embedded. . . . In one embodiment, the transponder is programmable to change transmission modes. In this embodiment, the transponder is programmed during testing and calibration, prior to being implanted into the host animal. . . . Alternatively, as mentioned above, the transponder may be field programmable and can be programmed even after being implanted into the host animal. (Emphasis added.) *Pages 10 and 11, paragraphs 0087 and 0088.*

Additionally, *Chan, et al.* states that:

While the transponder described above with referenced to the drawing figures has been discussed primarily in reference to sensing a body characteristic of a host animal . . . other applications exist for the use for such a device. . . . The above-described invention may be used in such applications to identify a body characteristic associated with the body in which the transponder is embedded or mounted. (Emphasis added.) *Page 11, paragraph 0091.*

Finally, *Chan, et al.* states:

In yet another embodiment, the RFID system may be used to monitor a body characteristic of a host continuously or periodically. . . . For example, a temperature sensing transponder may be implanted in a host animal and used to continuously monitor subcutaneous temperature of the animal. . . . In one embodiment, the antenna is incorporated into a flexible pad which may be secured to the animal over the area where the transponder has been implanted. (Emphasis added.) *Pages 15 and 16, paragraphs 0122 and 0123.*

As may be appreciated, each of the above-noted language extracts from *Chan, et al.* pertain to arrangements in which the transponder of *Chan, et al.* is implanted or otherwise embedded in an

animal or object. Furthermore, Applicant can find absolutely no disclosure or suggestion by *Chan, et al.* to position a transponder at any location relative to an object other than an embedded location. In this regard, while the Examiner has stated that “*Chan, et al.* not only disclose the transponder being ingested in the body, but further disclose other attachment methods,” Applicant submits that *Chan, et al.* completely fails to contemplate or motivate positioning of a temperature measurement transponder on an external dermal surface of an animate body, or to otherwise utilize a sensor having a thermally conductive surface for thermal contact with a dermal surface of an animate body.

Additionally, *Ishikawa, et al.*, *Bui, et al.*, *Barber, et al.* and *Watters, et al.* all fail to disclose a method or systems which provide for a sensor that is interconnectable to an animate body and operable to utilize energy from the interrogation signal of a hand held probe to measure the temperature of the animate body and generate a response signal indicative of the measured temperature, much less a sensor having a thermally conductive contact surface for thermally contacting an external dermal surface of an animate body. Rather, *Ishikawa, et al.*, *Watters, et al.* and *Barber, et al.* contemplate the use of transponders on inanimate bodies.

As to *Bui, et al.*, Applicant notes that no provision or suggestion is made therein in relation to the use of a sensor that is interconnectable to an external dermal surface of an animate body so as to measure the temperature of the animate body or to measure any other characteristic of an animate body. Rather, the system and method disclosed by *Bui, et al.* provides for the use of a radio frequency identification (RFID) tag that only stores medical record data, as opposed to any measurement capabilities. In this regard, while the medical data monitor and storage system of *Bui, et al.* provides for the use of an RFID tag worn by a patient, no provision is made for temperature measurement, much less for temperature measurement at an interface of a thermally conductive surface of a sensor and an external dermal surface of an animate body. For example, in one embodiment, *Bui, et al.* describes the use of an RFID tag 29 that is attached to a tag holder 24 in the form of a “patient identification bracelet.” Applicant submits that no suggestion or motivation is provided by *Bui, et al.* to modify the RFID tag 29 thereof to include a temperature measurement capability, much less to modify tag holder 24 to provide a thermally conductive surface for thermal contact with an external dermal surface of an animate body. Further, in this regard, it should be noted that, in relation to the embodiment of FIG. 6, *Bui, et al.* states that the RFID tag 206 is

preferably attached to “a standard identification bracelet or anklet.” *Page 5, paragraph 0055.* Applicant submits that a “standard identification bracelet or anklet” does not have the capability to measure temperature, much less measure temperature utilizing energy derived from an interrogation signal, much less include a thermally conductive surface for thermal contact with an external dermal surface of an animate body.

Further, Applicant submits that *Bui, et al.* actually teaches away from incorporating any sort of measurement capabilities into the RFID tag 29 or 206 taught by *Bui, et al.* In this regard, in referencing FIG. 5, *Bui, et al.* states that:

[A] method for recording medical activities using an RFID tag is described. . . . The method starts at block 150 and continues to block 152 where a patient care plan is downloaded. . . . After downloading the patient care plan, the care provider reviews the patient care plan as indicated by block 154. By reviewing the patient care plan, the care provider is able to determine whether a medical activity needs to be performed as indicated at decision diamond 156. . . . Once the care provider has verified the patient information, the care provider performs the medical activity as indicated by block 159. . . . It should be appreciated that the medical activity could be any suitable medical activity including . . . measuring body temperature. . . . After performing the medical activity, the care provider indicates that the medical activity is completed as indicated by block 160. For example, the care provider presses a “complete” button. . . . Pressing the complete button signals that the medical activity is completed and the hand held computing device updates the patient’s medical record as indicated by block 161. . . . (Emphasis added.) *Page 4, paragraphs 0045-0049.*

Clearly, the method described by *Bui, et al.* only contemplates the use of system components to store data regarding whether a given medical activity, e.g. measuring body temperature, has been completed, as opposed to system components that actually provide the capability to carry out a medical activity, e.g. temperature measurement.

In addition to the foregoing, Applicant submits that the various references noted above cannot be combined so as to render the invention of Claims 1, 20 and 44 obvious. Again, none of such references disclose a system or method that provides for a sensor interconnectable to an external dermal surface of an animate body to measure a temperature thereof utilizing energy from an

interrogation signal of a portable hand held probe, much less a sensor having a thermally conductive surface for thermally contacting an external dermal surface of an animate body for temperature measurement purposes. As such, no combination can yield such a feature. Further, no suggestion or motivation is provided by any of the references to even combine such references to yield a method or systems as per Claims 1, 20 and 44 of the present invention. In fact, given the teaching of *Bui, et al.* noted above (i.e. teaching away from the use of an RFID tag to measure temperatures), Applicant submits that *Bui, et al.* would actually demotivate one skilled in the art from any combination with *Chan, et al.*

For the record, Applicant notes that it is clear that the prior art must teach or otherwise motivate a combination of prior art references. For example, in the CAFC decision of *In re Anita Dembiczak and Vincent Zinbarg*, 175 F.3d 994, U.S.P.Q.2D (BNA) 1614 (Fed. Cir. 1999) the Court stated:

Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. See, e.g., *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1352, 48 U.S.P.Q.2D (BNA) 1225, 1232 (Fed. Cir. 1998) (describing “teaching or suggestion or motivation [to combine]” as an “essential evidentiary component of an obviousness holding”); *In re Rouffet*, 149 F.3d 1350, 1359, 47 U.S.P.Q.2D (BNA) 1453, 1459 (Fed. Cir. 1998) (“the Board must identify specifically...the reasons one of ordinary skill in the art would have been motivated to select the references and combine them”); *In re Fritch*, 972 F.2d 1260, 1265, 23 U.S.P.Q.2D (BNA) 1780, 1783 (Fed. Cir. 1992) (examiner can satisfy burden of obviousness in light of combination “only by showing some objective teaching [leading to the combination]”); *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2D (BNA) 1596, 1600 (Fed. Cir. 1988) (evidence of teaching or suggestion “essential” to avoid hindsight); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 297, 227 U.S.P.Q. (BNA) 657, 667 (Fed. Cir. 1985) (district court’s conclusion of obviousness was error when it “did not elucidate any factual teachings, suggestions or incentives from this prior art that showed the propriety of combination”). See also *Graham*, 383 U.S. at 18, 148 U.S.P.Q. (BNA) at 467 (“strict observance” of factual predicates to obviousness conclusion required). Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight. See, e.g.,

Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 U.S.P.Q. (BNA) 543, 547 (Fed. Cir. 1985) (“The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time.”). In this case the Board fell into the hindsight trap.

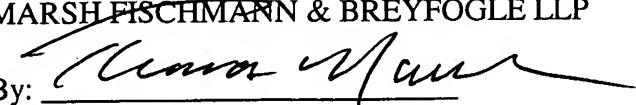
Applicant submits that in the present case the Examiner’s reliance on any combination of the noted reference to reject Claims 1, 20 and 44 is the result of inappropriate hindsight analysis and, for the various reasons noted above, Applicant respectfully requests withdrawal of claim rejections based thereupon.

Applicant further submits that Claims 2-17 and 19; 21-35 and 36-47; and 45-47, which are dependant upon Claims 1, 20 and 44, respectively, are allowable for the same reasons as noted above and additionally since such claims present further combinative features not disclosed or otherwise suggested by the cited references. For example, since the RFID tag disclosed by *Bui, et al.* is only utilized to store medical data, as opposed to having any ability to measure a physical characteristic (e.g. temperature), *Bui, et al.* has no need and thus no motivation to modify the RFID tag taught thereby so as to incorporate the insulating features of Claims 15 and 43 and/or the adhering features of Claims 16, 41 and 45. Similarly, *Chan, et al.* provides has no need and therefore provides no motivation for such features since the transponder of *Chan, et al.* is implanted.

Based upon the foregoing, Applicants believe that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

MARSH FISCHMANN & BREYFOGLE LLP

By: 

Thomas R. Marsh

Registration No. 31,039

3151 South Vaughn Way, Suite 411

Aurora, Colorado 80014

(303) 338-0997

Date: 3/13/06